

Wbp2nl Cas9-KO Strategy

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Design Date:

2020-2-17

Project Overview

Project Name

Wbp2nl

Project type

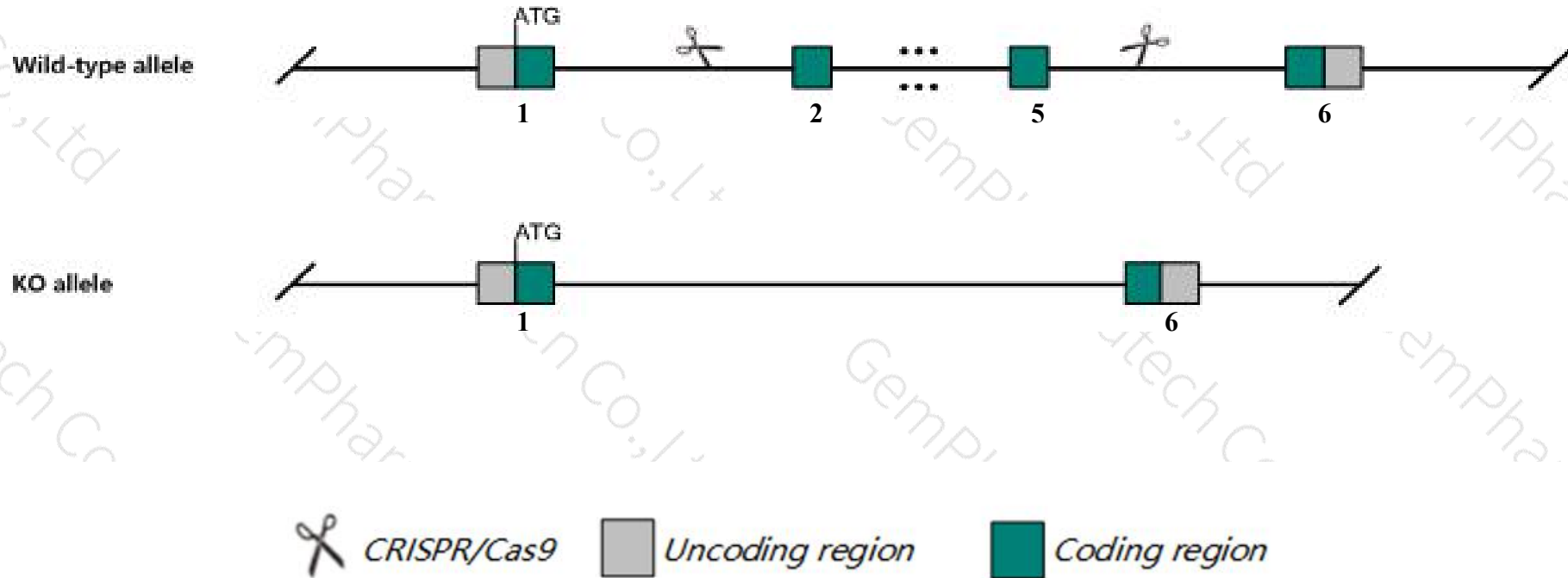
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Wbp2nl* gene. The schematic diagram is as follows:



- The *Wbp2nl* gene has 1 transcript. According to the structure of *Wbp2nl* gene, exon2-exon5 of *Wbp2nl-201* (ENSMUST00000023089.4) transcript is recommended as the knockout region. The region contains 449bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Wbp2nl* gene. The brief process is as follows: CRISPR/Cas9 system

- According to the existing MGI data, Male mice homozygous for a knock-out allele exhibit normal sperm morphology, acrosomal reaction, egg activation and fertility.
- The *Wbp2nl* gene is located on the Chr15. If the knockout mice are crossed with other mice strains to obtain double gene positive homozygous mouse offspring, please avoid the two genes on the same chromosome.
- This Strategy is designed based on genetic information in existing databases. Due to the complexity of biological processes, all risk of the gene knockout on gene transcription, RNA splicing and protein translation cannot be predicted at the existing technology level.

Gene information (NCBI)

Wbp2nl WBP2 N-terminal like [Mus musculus (house mouse)]

Gene ID: 74716, updated on 31-Jan-2019

Summary



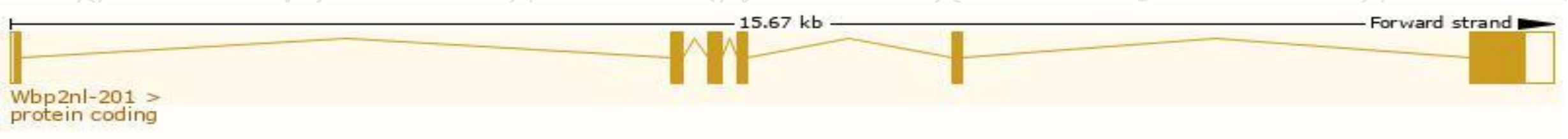
Official Symbol	Wbp2nl provided by MGI
Official Full Name	WBP2 N-terminal like provided by MGI
Primary source	MGI:MGI:1921966
See related	Ensembl:ENSMUSG00000022455
Gene type	protein coding
RefSeq status	PROVISIONAL
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	4930521I23Rik, PAWP
Expression	Restricted expression toward testis adult (RPKM 60.3) See more
Orthologs	human all

Transcript information (Ensembl)

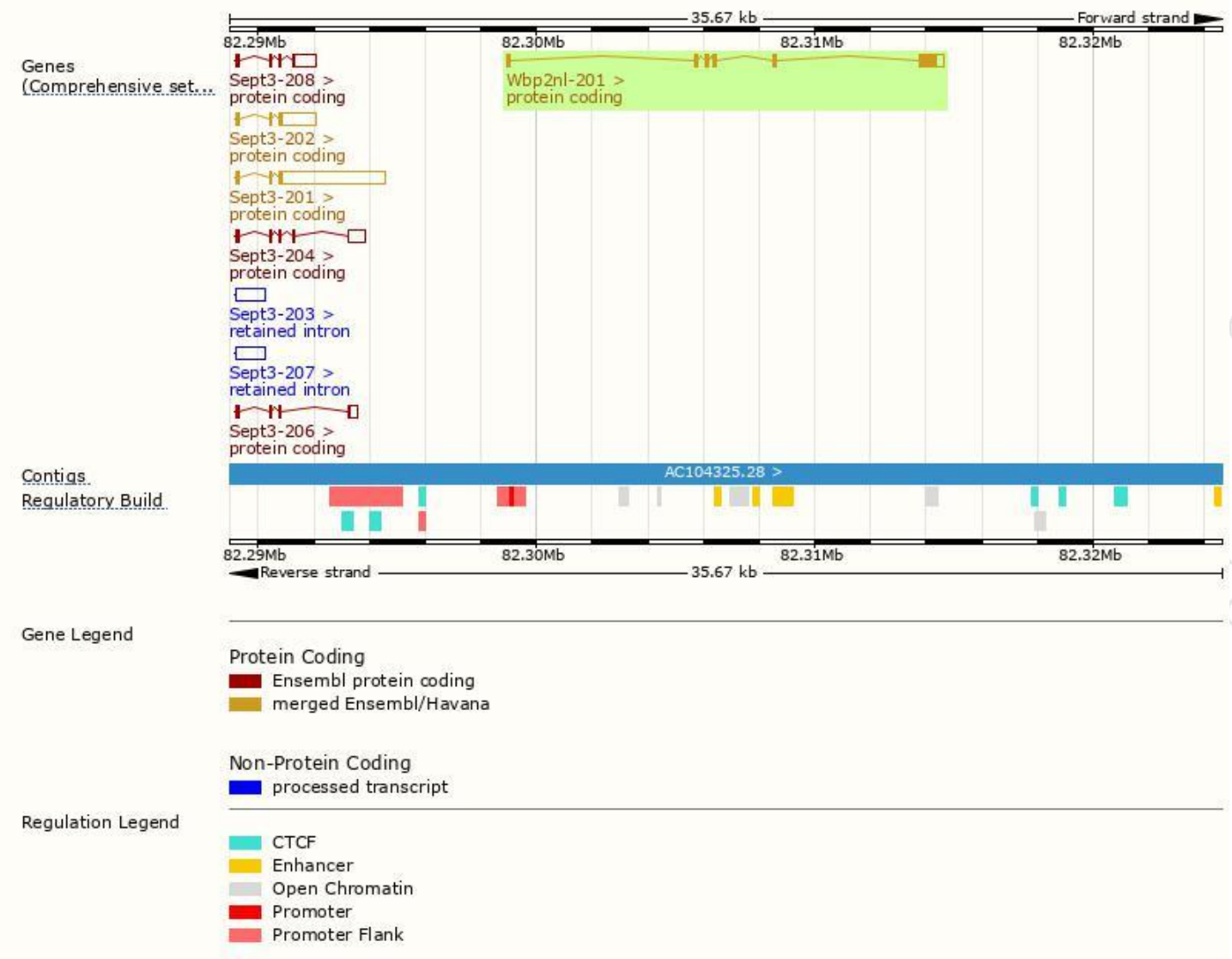
The gene has 1 transcript, and the transcript is shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Wbp2nl-201	ENSMUST00000023089.4	1413	359aa	Protein coding	CCDS37158	Q9D529	TSL:1 GENCODE basic APPRIS P1

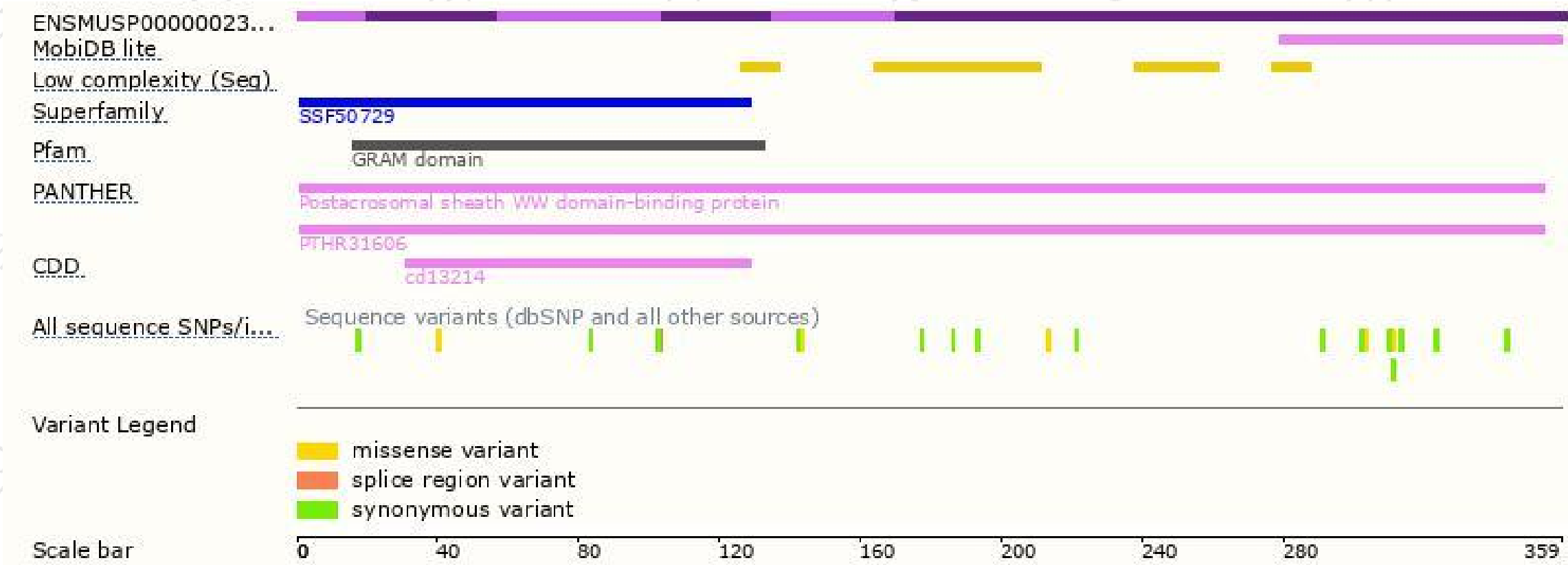
The strategy is based on the design of *Wbp2nl-201* transcript, The transcription is shown below



Genomic location distribution



Protein domain



If you have any questions, you are welcome to inquire.

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